

# Journal of The American Institute of ARCHITECTS



MATTHEW BUCKLAND

October, 1950

---

How Should Our Cities Grow?—I

---

Color Problems of the Architect

---

New Capital of the Punjab

---

Architecture and the War

---

What Is BRAB, and Why?

---

The British Look at Our Building

---

Fifty Years Hence in the Federal City

---

35c

PUBLISHED MONTHLY AT THE OCTAGON, WASHINGTON, D. C.

# JOURNAL OF THE AMERICAN INSTITUTE OF ARCHITECTS

WITH THE AIM OF AMPLIFYING  
AS THROUGH A MICROPHONE  
THE VOICE OF THE PROFESSION

OCTOBER, 1950

VOL. XIV, No. 4



## CONTENTS

Architecture and the War.....	147	Calendar .....	176
<i>By the Committee on National         Defense, A.I.A.</i>		Honors .....	177
How Should Our Cities Grow?		Color Problems of the Architect	178
—Part I .....	148	<i>By Waldron Faulkner</i>	
<i>By Paul Windels</i>		They Say: Jerry Finkelstein, I. C.	
Fifty Years Hence in the Federal		<i>Perrott, Walter Gropius, Dr.</i>	
City .....	153	<i>Paul Siple, Eliel Saarinen,</i>	
<i>By Ralph Walker, F.A.I.A.</i>		F.A.I.A. ....	183
The British Look at Our Building	159	Architects Read and Write:	
<i>By Frederick Gutheim</i>		A Prescription Refilled? ....	185
What Is BRAB, and Why?.....	162	<i>By John S. Burrell</i>	
<i>By William H. Scheick</i>		The Library Pool .....	186
The New Capital of the Punjab	166	<i>By Francis P. Sullivan, F.A.I.A.</i>	
<i>By Albert Mayer</i>		Lewis Mumford on Regional	
News from the Educational Field	175	Planning .....	187
		<i>By Charles Dana Loomis</i>	
		The Editor's Asides .....	189

## ILLUSTRATIONS

Cover portrait: Matthew Buckland, Architect of the  
Hammond House (1770), Annapolis, Md.

Master Plan and Detail Plans of the New Capital City,  
Punjab, India ..... 167-170  
*Mayer & Whittlesey, architects and engineers*

---

*The Journal of The American Institute of Architects*, official organ of The Institute, is published monthly at The Octagon, 1741 New York Avenue, N. W., Washington 6, D. C. Editor: Henry H. Saylor. Subscription in the United States, its possessions and Canada, \$3 a year in advance; elsewhere, \$4 a year. Single copies 35c. Copyright, 1950, by The American Institute of Architects. Entered as second-class matter February 9, 1929, at the Post Office at Washington, D. C.



U.S.A.  
CANADA  
EUROPE  
AFRICA  
SOUTH AMERICA

Fine colored granites from producing quarries of worldwide reputation now offer the designer a wider range of colored stocks than have been commercially within reach in the past. The distinguished roster of domestic Fletcher granites, widely used and admired, have been supplemented with imported granites of rare beauty from Canada, South America, Europe and Africa.\* Surprising economy is possible by specifying Fletcher Granite Veneer. Domestic sheets may be ordered in sizes up to 12 feet by 8 feet and in imported stocks in sheets up to 6 feet by 3 feet. Optimum economic thickness for either veneer is 1½ inches. Fletcher consultants will be pleased to collaborate in the solution of any problems incident to the use of granite.

*\*Our Bulletin No. 6, COLOR IN GRANITE, illustrating 20 imported and domestic granites in full natural color, available on request.*



H · E · F L E T C H E R   C O M P A N Y

WEST CHELMSFORD, MASSACHUSETTS. • 104 EAST 40TH STREET, NEW YORK 16, N. Y.

---

# skylines...



by *Otis*

SLATTERY BUILDING, SHREVEPORT modernizes to provide fast, dramatic AUTOTRONIC elevator service. The Slattery management feels that, "Once again, we have been well advised by Otis." Otis helped in planning and installing 4 manually operated cars in 1923. Otis has helped again with a modernization plan to keep the Slattery Building competitively abreast of new buildings . . . with AUTOTRONIC elevating and its automatic supervision and 6 basic traffic programs . . . with assistance in designing the Otis-built entrances and cars . . . with a construction plan that would not impair present elevator service during the change-over.



## **ELEVATOR COMPANY**

*Offices in All Principal Cities*

**Home Office: 260 11th Avenue, New York 1, N. Y.**





HANDSOME **NEW** STOCK SASH  
CUSTOM-STYLED TO HARMONIZE  
WITH **MODERN** ARCHITECTURE

THE  
**Kawneer**  
COMPANY

ARCHITECTURAL METAL PRODUCTS

NILES, MICH.; LEXINGTON, KY.; BERKELEY, CAL.



# INDIANA LIMESTONE

A thing of beauty deserves the finest medium of expression . . . and in building materials that's Indiana Limestone. Not only does it offer incomparable beauty in color and texture, but it is relatively less expensive. This means a practical level of economy for those decorative elements which mean so much in your building designs.

## The Nation's Building Stone

**BUFF • GRAY • VARIEGATED • RUSTIC • OLD GOTHIC**

**INDIANA LIMESTONE INSTITUTE**  
P. O. BOX 471 BEDFORD, INDIANA



*You are invited to make full and frequent use of our technical  
counsel without expense or obligation.*

STANDARDIZED SERVICE IN STEEL CONSTRUCTION

T  
E  
E  
L  
  
J  
O  
I  
S  
T  
S  
  
L  
O  
N  
G  
S  
P  
A  
N  
S  
  
D  
E  
C  
K  
I  
N  
G  
  
A  
N  
D  
  
T  
R  
U  
S  
S  
E

## TWO ON THE AISLE FOR SPECIFICATION WRITERS

Translating the owner's needs into a design and coordinating that design into a structure intercepts at many points the responsibility of the specification writer.

Since our products must pass through this screening we wonder if these selectors of WHOSE and WHAT ever see us in action.

Everything Macomber makes is engineered to do a certain amount of work in the building and to have a distinct advantage DURING CONSTRUCTION to keep costs down.

Where then except DURING CONSTRUCTION can you see the difference between wiring top lath to other joists and the time and concrete saved when slab centering is nailed to V Joists to prevent deep pockets of wasted concrete between joists? This is one of dozens of ON-THE-JOB illustrations of Macomber products.

Cost analysis and its ramifications through all the "subs" cannot compare with on-the-job analysis of what Macomber actually gives you.

Come up and see us sometime.

**MACOMBER** *Incorporated.* CANTON, OHIO  
A NAME RESPECTED IN ENGINEERED CONSTRUCTION

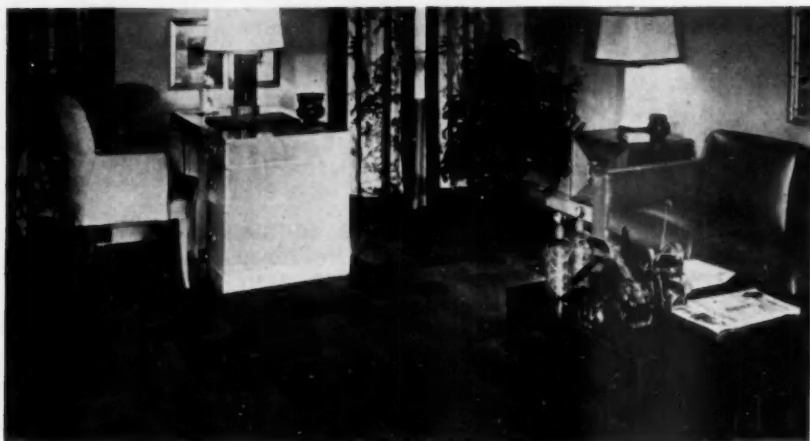
STANDARDIZED LOAD BEARING UNITS SPEED BUILDING

A  
I  
L  
A  
B  
L  
E  
  
S  
T  
E  
E  
L  
  
F  
R  
A  
M  
I  
N  
G  
  
F  
O  
R  
  
M  
U  
L  
T  
I  
P  
L  
E  
  
H  
O  
U  
S  
I  
N

Announcing... New 3/16" gauge

# KENCORK

*At New Low Prices*



**New Kencork's Complete Floor Beauty costs  
your clients less than wall-to-wall broadloom!**

**N**OW OFFER Kencork at lower prices than ever before! This resilient flooring does the work of floor and carpeting alike... offers restful, quiet comfort underfoot... a perfect flooring that wears years longer. Staining liquids that permanently damage carpeting come right off Kencork! Kencork insulates against heat and cold... is ideal for use with radiant heating.

Specify Kencork Walls in new 3/16" gauge, too. Your clients will be delighted with this distinctive, luxury wall treatment at the new lower cost.



David E. Kennedy, Inc., 58 2nd Ave., Brooklyn 15, N.Y.

**RESILIENT FLOORS FOR OVER FIFTY YEARS... KENTILE... KENCORK... RUBBER TILE**



## It's no time to fiddle!

**HEADLINES** warn us of the menace of spies and subversive agents. But in every community there is a hazard, largely unrecognized, which may become ready tinder for the ravaging flames of socialism and communism. This is the misconception of everyday economic facts that exist among our young people.

For example, a recent poll among high school seniors shows that the majority of them believe that the owners of business take out for themselves a larger share of the income than is paid to employees. They think the stockholders' average return is 24% of the sales dollar. The truth is that stockholders average less than 3%, whereas over 30% of the income dollar is paid out as wages, pensions and other benefits.

Our young people do not seem to realize that paying dividends is only one function of profits. Far more important today is the need for profit to keep business competitive, and to pay for new buildings, machinery, and other necessary equipment and to provide new and more jobs. Ignorance of this fundamental concept breeds contempt for the system of enterprise that built our country and keeps it strong.

The facts of business must be given to our boys and girls to protect their future. Only business men can supply the facts. As a business leader in your community, it is your responsibility to help clear up such misconceptions. The old story that Nero fiddled while Rome burned must not have a counterpart in America.



### The Youngstown Sheet and Tube Company

General Offices—Youngstown 1, Ohio  
Export Offices—500 Fifth Avenue, New York

**MANUFACTURERS OF CARBON ALLOY AND YOLOY STEELS**

RAILROAD TRACK SPIKES - CONDUIT - HOT AND COLD FINISHED CARBON AND ALLOY BARS - PIPE AND TUBULAR PRODUCTS - WIRE - ELECTROLYTIC TIN PLATE - COKE TIN PLATE - RODS - SHEETS - PLATES.

No. 5 OF A SERIES



HENRY BACON

*Recipient of*

The A.I.A. GOLD MEDAL 1922

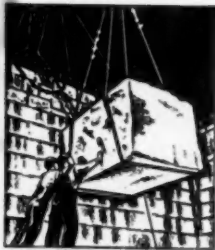
## *Is it a Coincidence?*

HENRY BACON, known for his achievements in Architecture, was chosen for The Institute's highest honor—its Gold Medal for the year 1922.

It is not a coincidence, but a significant fact, to note that Mr. Bacon, among others who have received this honor, frequently employed Georgia Marble in his work. His figure of Lincoln in the Lincoln Memorial at Washington is of Georgia Marble.

Georgia Crystalline Marble has stood the test of time through the years in countless impressive structures of legendary prominence in the field of Architecture.

## THE GEORGIA MARBLE COMPANY of TATE, GA.



Sales and Services Offices: New York, N. Y.,  
Brighton, Mass., Cleveland, O., Philadelphia, Pa.,  
Washington, D. C., Atlanta, Ga., Rochester, N. Y.,  
Chicago, Ill.

*Geologists have estimated that it will take 1800 years to exhaust the virtually limitless supply of Georgia Crystalline Marble.*



## Architecture and the War

**W**HATEVER ADJECTIVES may be used to qualify the situation in which our nation finds itself, it is war. When Americans are dying on the battlefield, and when the requirements of the national security make necessary restrictions embracing much of the nation's manpower, wealth and productive capacity, it is a quibble to call it anything but war. The President has warned that the nation must pull in its belt, and that business cannot continue "as usual." And as we look ahead there is no evidence that the storm clouds will lift; rather it seems probable that they may grow darker.

The architectural profession has already been deeply affected by this war. We have seen men leave our drafting-rooms and our architectural schools to take their place in the armed forces. We have seen the effects of shortages of building materials, rising costs, and general uncertainties over the present and future atmosphere in which building will be done. As we look ahead, there can be little doubt that these disruptions are part of the price of war, and as they continue, and even increase, they represent conditions to which we will have to adjust ourselves as a profession for some time to come. We must adjust because building must go on if national needs, both civilian and mili-

tary, for buildings of all sorts are to be met.

The first obligation of architects today is to support the war we are fighting in fulfillment of our obligations as a member of the United Nations. Our second obligation is to ensure that the building enterprises upon which the nation depends for its health, welfare, and security to the extent that we are responsible for them, continue smoothly, efficiently and economically, whatever difficulties the times present. Beyond that, we must as a profession hold ourselves ready, and we must prepare ourselves for such added calls upon us, nationally and in our home communities, as the times may impose



and the national security may require.

To equip us to make our maximum contribution in these changing and difficult times, The Institute has initiated a comprehensive survey of the profession as a whole. Your cooperation in completing and returning your questionnaire in the 1950 Survey of the Architectural Profession, which has been sent you, is essential if we are to show how architects can be of the maximum service to the nation.

#### 1950 Survey Returns

Through September 21 the Commission for the Survey of Educa-

tion and Registration reports it has received 7,940, or 41% of the World War II postcard questionnaires mailed in August to 19,000 registered architects. The responses to the Mass Questionnaire are 3,865, or 20% of the 19,000 mailed on September 1. Since the information requested through these two media is of vital importance to the entire profession in the present emergency as well as to its general well-being now and in the future, every registered architect should return the two questionnaires promptly.

NATIONAL DEFENSE COMMITTEE,  
A.I.A.

## How Should Our Cities Grow?

IN THREE PARTS—PART I

*By Paul Windels*

PRESIDENT, REGIONAL PLAN ASSOCIATION, INC. OF NEW YORK

An address delivered at the Annual Convention, A.I.A.,  
Washington, D. C., May 11, 1950

THE AMAZING GROWTH of American cities is one of the great dramas of our history. The first census, taken in 1790, showed that about 5% of our population lived in cities. Only five of these contained more than 10,000 people. It was then hoped and expected that we would remain a rural

nation. Thomas Jefferson, the most powerful single political influence during the formative years, had seen something of European cities and he wanted no part of them here. But time and destiny were against him.

Starting about 1800 and for the next century, a surge of popula-

OCTOBER, 1950

tion from the farms and from foreign lands swept into our cities in constantly increasing volume. Since 1900 this tide has flowed over into the surrounding areas.

There was thus evolved a new urban form which we commonly refer to as the metropolitan region. The most recent estimates indicate that half of our national population lives in 140 of these regions. Fifty million Americans now live on 1% of the nation's land.

For many years the suburbs have been increasing in population more rapidly than the central cities. The Census Bureau has estimated that between 1940 and 1947 the 13 largest cities increased in population by 10.6%. Their suburbs showed an increase of 19.2%, almost double the central-city rate. There is evidence that this differential continues and may be increasing.

Recent data on new housing construction in 12 metropolitan areas shows that about 60% of new housing is being built in their suburbs. The built-up areas of the New York Region have doubled since 1925 and will probably again double by 1975.

In all of our older central cities we find the requirements of mod-

ern life have outstripped their antiquated designs. They fall short of being effective instrumentalities of a civilized social order—as efficient, comfortable or beautiful as they could or should be. They have been overwhelmed by the automobile and by the increasing demands of population, business and industry. The result has been unbearable congestion of people, buildings and traffic; grossly inadequate streets and highways; discomfort, inefficiency and delay; dirt, noise and confusion.

There are two additional factors affecting the future of our cities which we cannot ignore.

First: The endlessly-mounting municipal budgets. The per-capita cost of municipal government in the largest-sized cities is on the average more than double that of cities in the 25,000 to 100,000 population bracket.

Unfavorable social and other conditions require more municipal services to overcome them. Many of these directly result from the fact of congestion. They create the demands for municipal services which compel excessive per-capita costs of government.

Some of our city officials believe the way to balance these crushing municipal budgets is by piling up

bigger buildings which will pay higher taxes. But we can never overtake these snowballing costs of municipal government by intensifying the conditions which create them. If we do not find a way gradually to bring them under control by planned measures for orderly decentralization, we shall witness uncontrolled decentralization, a most wasteful process, needlessly destructive of public and private values.

This is a thought which should be pondered over by those who believe there is endless speculative wealth still to be acquired by piling up congestion on congestion in our central cities.

Second: National defense policies forced by the threat of the atom bomb. Once these defense policies are fully developed, they are bound to result in tremendous pressures for decentralization. And when we have reached the point where we can fully exploit the industrial possibilities of atomic energy, its invitation to the same result may be even greater than the compulsion of military defense.

What is the regional pattern which is evolving from these evident trends? In 1925, 98% of the suburban dwellings in the New

York Region were within a mile of a railroad station. The map of the Region looked like a star whose points represented development along the railroad lines converging on the Region's central cities. But with the establishment of bus routes and a regional network of highways, the star began to resemble a circle of solid urban development. This is typical of most metropolitan areas.

This expansion has thus become a sprawl of the huge monolithic structure of the city spreading across the surrounding countryside like the flow of lava from an erupting volcano. Pushed by the tremendous forces of technological advances and economic compulsions, the new metropolitan region is evolving with startling rapidity but, unfortunately, along haphazard lines. In too many instances, the old city pattern has been perpetuated and extended into a massive regional structure.

If present trends are allowed to continue without guidance or control, there will ultimately result a comparatively few solidly built-up metropolitan areas, roughly circular in shape, twenty-five and even fifty miles in diameter.

It would seem evident that the greatest problem to be overcome is

congestion. The basic aim of any new design must be to open up the overbuilt, crowded centers of cities to sun and air, and to greater freedom and ease of movement both for people and vehicles. In this process we must aim to restore the smaller neighborhood pattern in the central cities and to continue the same neighborhood pattern in their surrounding areas by preserving the separate identities of their local communities.

Why should we aim at this pattern? Because we know that for normal, wholesome living, community life must be cut down to a human scale in which people can share with a sense of individual dignity and significance and social responsibility. Anonymous living in great and impersonal cities create the problems, human, social and political, which continue to plague us and the anti-social mass emotions which spring from such environment.

The blighted residential sections of central cities should be redesigned, based on a more even distribution, a generally lower density of population and a pattern of local neighborhoods, each separated from the others by broad avenues which serve also as main traffic highways. Within these main

highway borders each neighborhood should have its own interior street layout, its own schools, playgrounds, shopping centers, parking and garage facilities, public and community buildings and other neighborhood amenities, as though each were, within the city, a separate village with its distinctive identity, interests and community life.

In some of our cities so-called "garden" housing projects mean only high buildings with high density of population, stratification of economic and sometimes even of age levels, uninspired repetition of architectural types and institutional appearance. They represent in many respects an enormous advance over what they replaced. But they are not the final answer. We must now raise our sights and move on to the planning of entire neighborhoods with types of housing which will attract families with small children by variations on the theme of widely-spaced one- and two-family and one-, two- and three-story buildings.

As to suburban areas, our Association has suggested some principles which, if they have merit, are equally applicable to every ex-

panding metropolitan region in the nation. Our plan for the 17 counties surrounding New York City is "... that as against disorganized sprawl of the ... [cities] within this Region as a method of accommodating its growth, overwhelming and absorbing the small towns in their orbit: *first*, that we deliberately set about to preserve the essential identity and character of these small towns; *second*, that we channel a major part of the Region's growth toward a much larger number of centers; *third*, that we deliberately design and create entirely new and distinctive self-sufficient communities for the purpose of accommodating a substantial part of our regional growth."

Thus we believe that as between the alternatives of the solid spread of the structure of the central city—the present uncontrolled trend—and the planned channeling of the outflow of population into many separate and clearly defined suburban towns and villages, the latter is infinitely the more desirable pattern. It will be noted that it is essentially the same pattern as that proposed for the central city with its separate and clearly defined neighborhoods.

These are not unattainable

dreams. The American people know how to get what they want if they are persuaded the goals are worthwhile. And let us never underestimate the effectiveness of citizen effort, its educational value or its ultimate influence on official thinking and action. The Regional Plan for New York and Its Environs, proposing a comprehensive and coordinated program of highways, parkways, airports and park systems, was promulgated twenty years ago by a privately financed citizen group. More than half of that plan has already been achieved, much ahead of schedule. Practically every public project in these categories undertaken in the Region since that date has followed the recommendations of this citizen plan.

It would be theoretically possible to create an entirely new urban America within the next century if, as a nation, we were determined to do it. In the past five years, we have built new housing and business and industrial plants sufficient to accommodate one-tenth of the nation's present population—the equivalent of 35 cities of 100,000 people in each of the past five years.

As a practical people, however, we recognize that we cannot completely discard what we have. Nor

can we expect, at least in the foreseeable future, any such radical departures as so-called vertical cities or ribbon cities along new arterial highways. The best we can do is to accept the patterns which are evolving naturally and endeavor to give them some intelli-

gent and coherent form. In doing this, we must never lose sight of the simple yet fundamental truth that cities consist of individuals and families, and when we fail to provide for the real needs of people, our urban civilization to that extent loses its vitality.

## Fifty Years Hence in the Federal City

*By Ralph Walker, F.A.I.A.*

A talk before a luncheon meeting of The A.I.A. and the Joint Committee on the National Capital, Washington, May 12, 1950

ONE CANNOT UNDERSTAND THE FUTURE unless one realizes the pace of the past. In every civilization there is a curve of growth as inexorable as fate. It begins slowly, gains fire, reaches high into the sun, and quietly succumbs to a point of fatigue—each rarely recognized by the station as it is plotted on the curve. In considering Washington and its next fifty years, one may try to be a prophet, groping into the mists of the unknowable; one may look at the things urgently needed for correction and plot their possible solutions in an immediate future; one may shrug a shoulder and say it is impossible to achieve more than the present expedient. I trust one may not have to talk until Doomsday

as one asks for a social order which recognizes worth under skins of any color, under prayers of any faith.

*But no man ever builds better than that which he knows.*

It is quite possible to state simply that fifty years from now Washington will not exist—a few Roman columns, perhaps, here and there to confound the archaeologist of the far future. The forces are many to indicate that on the curve of Washington's growth, it has either now, or will soon, reach a plateau—perhaps the beginning of a declination in progress.

For example, there is always a point in the centralization of management when mere size works as a deterrent; where finally the

ability to control the web of organization breaks down because of the impossibility of one man or two—or even a politburo—knowing enough to do other than create a climate of obedience through fear.

To know what will happen to Washington fifty years from now, it will be necessary to know how much more capable in management the modern man may be than was Plato's prime illustration, i. e., Marcus Aurelius, or how many more years will elapse before the inevitable need for decentralized management will become so evident as to achieve actuality over the natural political desire not to change.

In contrast to political inertia, there are other forces which may change our whole concept of urban necessity. Before going, as I will, into the common ideas of decentralization, I think it worth noting that a new factor may cause Washington, especially, to become an unimportant pinprick on a map. Just the other day a news report from England related that Norbert Wiener, a specialist from the Massachusetts Institute of Technology in the design of automatic and electronic brains, had said concerning the future of the industrial city—to quote him: "We are on

the threshold of a catastrophic revolution brought about by the use of the automatic machine. Unless we prepare ourselves for it, our industrial cities face a vast decentralization process and a shifting of population to rural districts brought about by unemployment; for machinery controlled by electronic brains could, within a decade, completely wipe out the factory assembly line."

Shall we add to this that Winston Churchill when at M.I.T. shuddered at the possibility of the automatic brain taking over the rule of the world. Dr. Vannevar Bush wrote, several years ago, an article in *Harpers Magazine* describing the possibilities of an electronic "memex"—a machine capable of digesting, sorting and synthesizing the knowledge of the world, now grown too heavy for human intelligence.

Do you remember how forty years ago we laughed and said, "Get a horse"? And now the "red devils" are cluttering our cities, our highways; making a new civilization, new manners which determine our ways of life.

These two ideas just described, i. e., the failure of human management to circumscribe and solve the problems of the day and later



the growing dependence upon electronic automatic devices to resolve these very impossibilities, certainly should cause planners a moment of serious consideration.

Will a world of clerks become a world of I.B.M. monsters? Or will the mere hunting for a release from the frustration of city life cause a still further increase in today's decentralization?

In 1910, many people still owned horses, still had privies in the backyard. The women of the family still cleaned the chimneys of oil lamps each morning, and in winter the ice in the water pitcher was broken for the wakening and shivering dash called a wash. Since then, the pace has been violently increased, and the slow clop-clop of a few horses has become the whirl of billions of horsepower; and the normal way of living then in small cities has become now a symbol of a new world, for the small city has become the "New Town."

But in 1990 the bombs had rapidly caused the final decentralization of cities, and especially that of Washington—those bombs held or dropped at will by all the irresponsible of the world. The people who had not already left the urban centers now sought the simple lands still left unoccupied. The

struggle was great, as the waves of men, their women and children, their possessions once again all contained on their backs or on wheelbarrows, spread over the land. No one who remembers the long chains of war refugees lining the weary highways of the world can ever forget the true want of pity in our modern civilization.

Rapidly summing up man's lack of managerial ability, the development of automatic devices conquering the world like robots, his fear of destruction by the horrific agents he has created, one might well ask will Washington still be here fifty years from now or, if it is, will it be much smaller and of far less influence?

Shall we return for a moment to the idea of managerial size? Are we not pretty close to the point where the centralized government begins to act as a deterrent to the real solutions of the problems within the country? For is it not true that the idea of One World, whether *continent-wide or universal, must first be achieved in a world much more moral and much more self-disciplined?* In every vast organization, the "Titos" are the first signs of the crack-up. Philosophically, would it not seem

better to return the leaning-posts of our civilization back nearer to those who lean on them, back where the intimate social corrective can be applied?—and so, Dr. Wiener goes on, as reported, to say:

"We must prepare for this by an intelligent use of welfare until a time of stabilization occurs. We must change our judgment of value from a quantitative one to a qualitative one." When will be the time of stabilization? Shall we—with Isaiah—say, "Let us eat, and drink, for tomorrow we shall die"?

The question of quality *vs* quantity is with us always, for if we consider Washington we find that, to attain quality, we should be eliminating, right now, all the ugly expedients that two wars, especially, have foisted upon us: the Navy Building, one of the most permanent of the temporary, the barracks lining the Mall, and many other such structures, all of which should never have been built in the first place. They were bad planning, known as such, and during a time when the growing transportation bottlenecks were all too apparent. But so strong were the forces of centralization that everything, in a symbolic sense, had to crowd to the very center of the

center. We may have won wars—there is still a large question as to that fact—but we certainly ruined the Capital. The next fifty years, granting Washington still persists, should see the rapid elimination of all these war scars—the return of the land to park use, for Washington's climate needs larger lungs than most cities.

Then those Federal services which remain should be spread out into the region nearer where the people live. *There should not, in my opinion, ever again be another Triangle.* We must further redevelop L'Enfant's original concept of Federal Departments being scattered rather than concentrated. Nothing is more stupid than the vicious circle we find in our larger cities, where land is worth more because you can put more people on it, therefore you put more people on it, so therefore it becomes worth more.

In the next fifty years we must eliminate the slums; we must eliminate the Washington back alley, which mocks our claims of humanity with its stable concept of living, and devote ourselves to creating a living community of home and garden, in which is reasserted the belief in the possibility

of equal opportunity for all alike. *This is the American City, where the illustrations of good living should achieve perfection.*

In the next fifty years, the social implications of our time and the possibilities of the good life will continue to develop along the decentralizing trends we now see in evidence. "The City" will be a region, loosely knit as to both living and commercial communities, with less and less multi-family dwellings and more life lived in the open. Perhaps the greatest esthetic gain in our times has been the appreciation of large-scale landscape development—parkways, parks, playgrounds, and a growing understanding of the beauty of flowers.

And, if I may digress, speaking of landscaping, in the next fifty years I hope that some one will have the courage to rescue the Lincoln Memorial from the nasty lush planting around the podium of the structure. It certainly has been spoiled, smothered in richness—the greatest and worst example of foundation planting, that esthetic curse of our time.

To return to the open city now developing, Washington, like every other in this country, needs des-

perately the right to control the region outside the present city borders. The recent growths unless controlled will spoil every approach to the city. It is in the regional aspects of this city especially that there is the greatest need for planning and control.

Throughout the nation we have grown to accept the control of land use by zoning methods; they need to become stronger when applied, especially to the fringes of the city. Washington, just as is every other city, is being spoiled by the unplanned spread of new population. In most cases they are now visible as future slums.

I have visited most of the famous capitals of the world and found no real philosophy of urban living—just cleverness, a few architectural tricks. I question some of my colleagues' admiration of Rio, for example; so much of the modern stuff is fit only for the I.B.M. machines which I have indicated may possibly replace the clerical world in which we now live, and which replaced the craftsman's work we left behind in the early nineteenth century. We have, in the western hemisphere especially, swapped the advantages of ample land for a vertical transportation system—one which has been swal-

lowed whole in a gulp, and as an economic solution.

Our office recently made a serious cost-analysis study of how to house most economically a certain office force. We found, leaving land costs out of consideration, assuming the same services obtaining in whatever structure we might build—i. e., good artificial lighting (*an absolute must*) regardless of the exterior glass area; air conditioning, etc., that a two-story building was 30% cheaper, that stairways were the easiest and cheapest way to move peak loads of work population. I will guarantee that the factors not readily measured, i. e., open planning on land with grass and trees instead of on hot pavements, will show a further saving in the maintenance costs of cooling, in finer working conditions, in better work results.

Granting that we gain in wisdom, it seems natural that we will seek comfort far from the centers of the hot pavements, the hot buildings, erected with great densities of population—and gain in economy likewise.

Washington, the Capital, fifty years from now, may be several cities—should indeed be several cities—but whether it is or not, it should consider the river as it has

in the past, a pleasure rather than the site of a housing privilege for a very few. The region of Washington is unique in having a river whose banks still have a natural beauty. Most of the famous bays of the world—as at Rio, as at San Francisco—have been spoiled by wretched architecture; at Rio by badly designed apartment buildings—that is from an urban design sense. Here at Washington a magnificent opportunity was recognized and fostered into a fine tribute to the need of nature in our cities. The Capital should have more such parks, as an example of what urban beauty may be. To me one of the finest examples of Capital landscape scale is the great oval in back of the White House.

I said I have seen most of the great capitals. Very few, except Washington and Paris, have the great scale symbolic of a great country. I prefer Pennsylvania Avenue to the Red Square. I prefer a traffic bottleneck to a parade ground.

Bad as it is, Washington still has its points.

However, good or bad, the city of the future is going to be so widespread as not to be recognized as a city form. I foresee, if for a moment I may assume a "gula-

gula, hocus-pocus" attitude, people living and working in low buildings among great trees—wide areas of green rather than black-top or concrete. I see the whole skyscraper idea in deserved disrepute. I see new ghettos which house, however, only the robots. Humans have learned to live.

I visited a great copper mine recently and I overheard several conversations over the short-wave radio just like this: "Calling C-14"; "C-14 calling—that you Bill?" "Yes, Jim. Busy now?"

"No, Bill; what can I do for you?" "Well, Jim, go down to Cut A; Joe's in trouble, needs your equipment." "On the way, Bill." "Thank you, Jim." "O. K. Bill, we'll fix it."

If Washington is to live fifty years from now, it has got to call to the people of a free republic and get an answer. "That you, Bill?" "O. K. we'll fix it", on the level of free responsible citizenship. Otherwise, Washington fifty years from now will be a relatively small place with a guarded wall about it.

## The British Look at Our Building

*By Frederick Gutheim*

ONE OF THE most comprehensive surveys of the American building industry has recently been made by a group of British building technicians, including architects, engineers, builders and representatives of building trades. Both the facts gathered by the 16-man team, and their conclusions, although intended principally to stimulate interest in Great Britain, will be of value and interest to those concerned with any part of the building industry. To architects it will have a specific value.

It is not often that such a measured and well-rounded appraisal of a key industry is made. The survey, reflecting conditions in the summer of 1949 when the group visited here, was published recently by the Anglo-American Council on Productivity as an 80-page illustrated report and is available from the Council's American office, 2 Park Avenue, New York City.

The building group's American tour, in which they visited projects in a dozen states during six weeks, left no doubt that major accom-

plishments in building productivity were to be found in the United States. Still, they found little that was absolutely new to them, and their report tends to concentrate on the "why" of American productivity rather than the "how" of it. American builders get results, the report finds, because they pre-plan their work, because contractors and subs work together effectively, because men and materials are readily available, and because machinery big and little is applied to the building job.

In back of the building site, the group found other explanations for productivity in research both into building materials and techniques, and "the nation-wide stimulus of the American industrial climate, which has a great effect on the output of every individual, and which is shared by all the members of the building industry." In this last finding, the group thinks it found a way to explain why the American builder has an incentive to use tools and methods the British builder may know about but has no incentive to employ.

In the last analysis, the report concludes, the Americans build more and faster because everybody throughout the building industry, from the architect and the owner

to the building trades and the contractors, is making a great individual effort. Everyone shares the "consciousness of forming part of a well-organized team, moving at high speed." What makes for great individual efforts is the problem.

From this rather compressed summary of the survey team's official report it is obvious that, far from being a superficial impression, here is a document that penetrates beneath the surface to the dynamics of our still too-little-understood industry.

The purely architectural sections of the report are the work of Michael T. Waterhouse, president of the Royal Institute of British Architects, the first of his position to visit the United States during his term of office, and Robert H. Matthew, architect to the London County Council. They were chosen, one from the field of private practice, and one from the public service. Their observations are distinguished by a high degree of realism, and concentrate upon the working details of architectural practice—the types of drawings and specifications prepared, methods of tendering, fees and services rendered for varying sorts of work, relations with clients and contractors, as well as design.



In a speech before the R.I.B.A. last winter, printed in the *Journal of the Royal Institute of British Architects* for November 1949, Mr. Waterhouse paid a characteristic compliment to the American architectural profession. He spoke of their "reputation for keen business efficiency and complete 'know-how' of their job. Their salesmanship of this is good and is backed by results. I would say that their advice and opinion is accepted . . . as without question the best professional service available."

In a more recent meeting in the Kingsway Hall in London in June 1950, reported in the *Journal of the R.I.B.A.* for July, with the British Minister of Works in the chair, the findings of the Building Industry Productivity Team were discussed further. Mr. Matthew gave the major talk on the architectural aspects of the survey, re-emphasizing, "The speed and efficiency of a particular job is related not only to the individual architect's skill, the contractor's organization, and the output of the operative, but, inevitably to the general background within which the industry is working."

In this broader context, Mr. Matthew emphasized the importance of recognizing the limitations

of the architect working on an individual building job. "As long as the architect is forced to work and plan in relation to a building as an isolated and purely individual problem, unrelated to similar problems going on all over the country, so long will costs remain high and so long will we neglect our own great potential development." He found reason for optimism, however, in Britain's school building program, where "the great authorities in this country are beginning to show some appreciation of what can be done to link up scientific research, industrial production and building."

In the United States, according to Mr. Matthew, the architect sets the pace for fast-moving building jobs. "To keep the pace in face of strong competition, the American architect's office must be an efficient business organization, and his relationship with his client will normally be on a very business-like footing. In other words, he realizes that most buildings must be economic propositions, and from the time he takes on a commission he proceeds on that basis. This insistence on the architect as a good manager reflects directly in the way in which he prepares his



design and his documents for tender. As there are no bills of quantities in the American system, the architect is obliged to show every detail on his drawings and to cover every operation fully in his specifications. In consequence, the sets of drawings prepared for the average job—and I repeat—the average job—are a model, as far as completeness and definition are concerned."

Mr. Matthew then explained that several sets of drawings had been brought back to England and are deposited in the library of the R.I.B.A.

He paid the highest tribute to the teamwork of American builders, saying, "Every one of the team visiting almost every job in

the States, was impressed by the attitude of the architect and engineer to the contractor, of the contractor to the sub-contractor, of the supervisor to the men. This, I suppose, is part of the American way of life, and it is an aspect which I profoundly respect.

"We have our own way here, and a hundred visits to the States will not alter that. But, if every architect, every contractor, and operative, could come to see, in some small measure, beyond the confines of his particular interest, and come to realize the interest of the building team as a whole, to put it at its very lowest, we should have added a factor of efficiency to the industry of the very greatest value."

## What Is BRAB, and Why?

*By William H. Scheick*

EXECUTIVE DIRECTOR, BUILDING RESEARCH AND ADVISORY BOARD

YOUR EDITOR asks me to straighten out the architects in their idea of what BRAB is and what it is doing. For at least two reasons, I think it ought to be easier to explain BRAB to architects than anyone else: (a) BRAB is founded on an *idea*, and architects are idea men; (b) BRAB

stands for coordination in building research, and architects practise coordination of building technology.

The only handicap with architects on this subject is the fact that it deals with research, and architects collectively don't seem to be research-minded.

OCTOBER, 1950

BRAB is first explained by explaining the idea behind it, and that is expressed simply by the words "the stimulation and correlation of building research." This gets complicated immediately by the necessity to explain the term building research, which means something different to every technical specialist, if it means anything at all.

Research presently means something very definite in the field of heating and air conditioning. It means something very definite to the manufacturer who is continually trying to produce a better building product. Outside of these fields we have a hard time trying to define research, and harder yet to find examples to which to point. Some home economists and designers have done serious study on kitchen planning—and this is a sample of a line of experimentation that could be applied to the planning of any enclosed space. Some architects and engineers have worked on principles of modular-engineered construction of small houses that could be applied to the design and engineering of any structure.

With the exercise of a little imagination, any architect can begin to define a whole chain of prob-

lems related to the technologies and humanities involved in building design and construction which are suitable for serious research by specialists in each field. With a little more imagination, he can predict that such research will be most beneficial to building if the many separate programs of experiments are correlated in the same way that existing knowledge is correlated in the creation of a building.

All of this presumes, of course, that research is considered worthwhile. That assumption is rapidly becoming a fact, with many more dollars going into building research than ever before, and a significant housing research program getting underway by the Government. The men who founded BRAB are among those who believe research can be valuable for building. They are also aware of the inter-relation of all building problems and hence the desirability for the inter-relation of all building research.

Perhaps this explains the "stimulation and correlation of building research."

But, so far, this does not explain what BRAB is. Physically, BRAB presently consists of about thirty men who are members of the

Board, an Executive Director, employed to operate the office for BRAB, and his staff, consisting presently of an assistant and two stenographers.

BRAB is a part of the Division of Engineering and Industrial Research of the National Research Council, which, in turn, is the operating arm of the National Academy of Sciences. The founders of BRAB were glad to have it organized in the National Research Council, because the Council and the Academy together form an independent, non-government, scientific agency. In this position BRAB can render objective, impartial services to any research organization or combination of research organizations in the professions, industry, educational institutions or government.

The members of BRAB are selected by the National Research Council, always, of course, on the basis of broad inquiry. Members are selected for their qualifications as individuals and not as the "representatives" of organizations, although the members of the board are selected to represent the viewpoints of as many segments of the building industry and the related professions and fields of sciences as possible. Rotation of memberships

will be practised on an annual basis, with a portion of the membership being replaced each year.

The financial support of BRAB presently comes from contributions from the building industry. The Construction Industry Advisory Council, sponsored by the U. S. Chamber of Commerce, conducted the first campaign for such funds in 1948-49. A committee of the Board now cooperates with the CIAC to augment the support toward a goal of \$100,000 per year for a five-year program.

As a part of the National Research Council, BRAB can also perform services under contracts with government agencies. Last year, a survey of modular coordination was made by BRAB under a contract with HHFA, and work is now beginning on a survey of housing research for the same agency. Government contracts enlarge the scope of activity by BRAB, but they do not provide permanent means for fulfillment of the general program.

One question seems to remain—what does BRAB do? The objectives originally laid out for BRAB included a great deal of survey work to determine what is being done in building research, what needs to be done, and how

to get needed work done. They included publication by BRAB, and conferences to bring together technologists and scientists for face-to-face discussion of building problems. The whole program, when activated would call for technical aides, field men, editorial and clerical personnel, much along the lines of the long-established Highway Research Board of the National Research Council, which has accomplished so much in the correlation of highway research.

BRAB began this year with a very small staff, just as the Highway Research Board did twenty-nine years ago. Consequently, the Board and the Executive Director have set their sights upon preliminary and fundamental accomplishments to lay the groundwork for larger-scale operations later. Six points were outlined for the initial program in October, 1949:

- 1 To conduct a survey of problems of the building industry.
- 2 To conduct research correlation conferences and forums.
- 3 To begin a continuing analytical classification of building research.
- 4 To encourage government agencies to avail themselves of the advisory services of BRAB.
- 5 To stimulate coordinated field trials of research results.
- 6 To develop a suitable program of publication and information.

Many of the things done by BRAB during this first year are intangibles. BRAB is working with an idea that persists in remaining intangible to many people in the building industry.

Progress in building research still depends in a large measure upon the *acceptance of responsibility for research* by some of the professions which have felt no responsibility for it before. The architects and the builders are two of these professions. Through BRAB, its conferences, and its everyday dealings the leaders of thought in many fields of building science are beginning to come to an idea which may mean much to future building—the stimulation and correlation of building research.



# The New Capital of the Punjab

By *Albert Mayer*

Address before Convention Symposium I, "Urban and Regional Planning," Washington, D. C., May 10, 1950

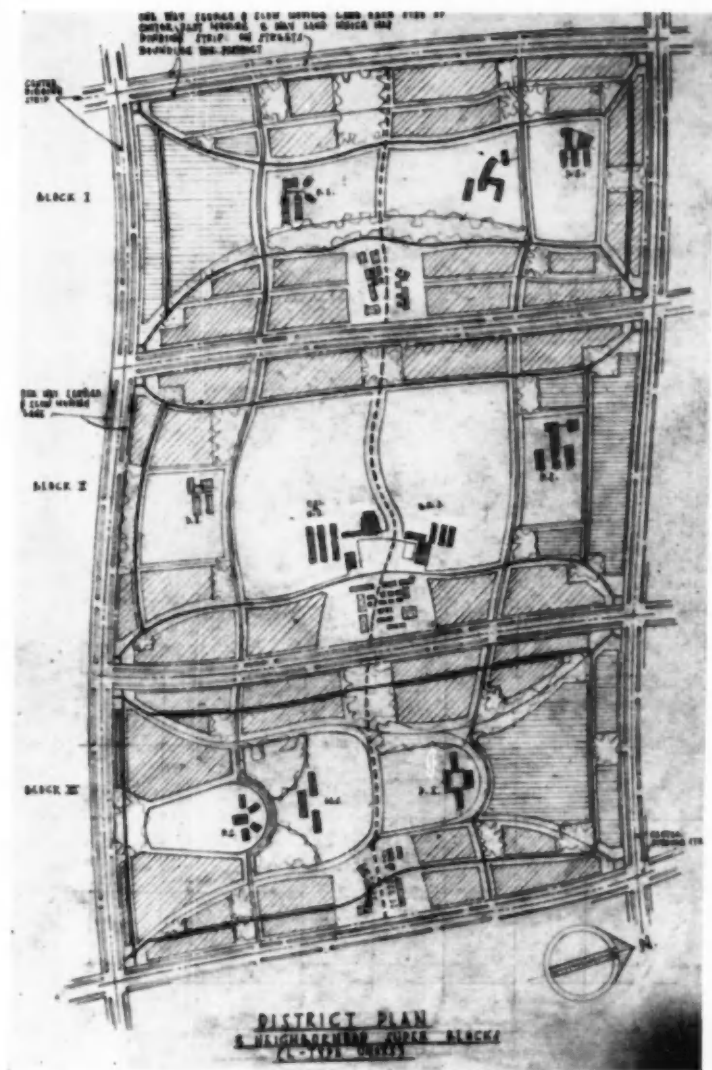
I WILL TRY today to make a vivid enough statement to give you some idea of what is proving nothing less than an exciting adventure. For in planning and designing a large, entirely new city, we are able to give living actuality to all those creative elements in city planning and civic design which have been discovered and talked about and hoped about for the last generation, but which no one has had the luck to be called upon to apply.

What is even more of an adventure is that you start with a pretty clear conceptual picture, but, as with any other creative experience, in your own work as it develops, unexpected situations seem to create and obtrude themselves out of what you have done; changing, giving different direction, re-molding the original concept. Another thing is that when you are trying to create something that really applies what we have talked about so much, but which has at best been done in a limited way in Radburn, the Greenbelt Towns, Baldwin Hills, you can't take anything for

granted; you are on uncharted ground; you've got to test everything out; you have to be *really* sure of what you are doing.

One other element I feel is important to bring out here. This work for the Punjab Capital, as well as the Rural Development work I have been doing in India, though the conditions are radically different and more primitive than ours—due to the very fact that we are beginning at the beginning, so to speak—this work and this thinking cast a remarkable light on our own work here, illumine and clarify it, make us aware of the very basis of things which over here are so heavily overlaid with vested achievement that we don't recognize them. I have learned from those in other fields that they have had this same experience. The classic case of this is in anthropology, which when I was in college dealt with primitive Central Americans, Samoans, Fiji Islanders, but whose discoveries in those remote areas and civilizations are now applied with new insight to examination of ourselves. Thus,

OCTOBER, 1950

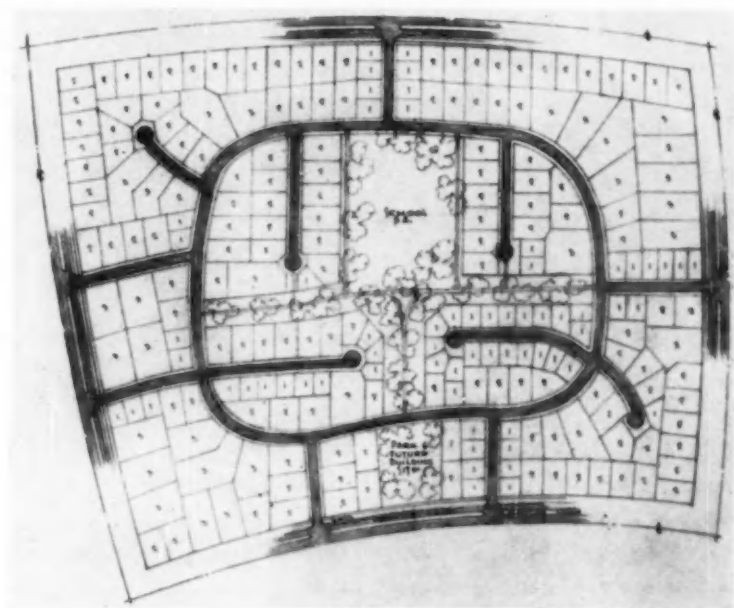
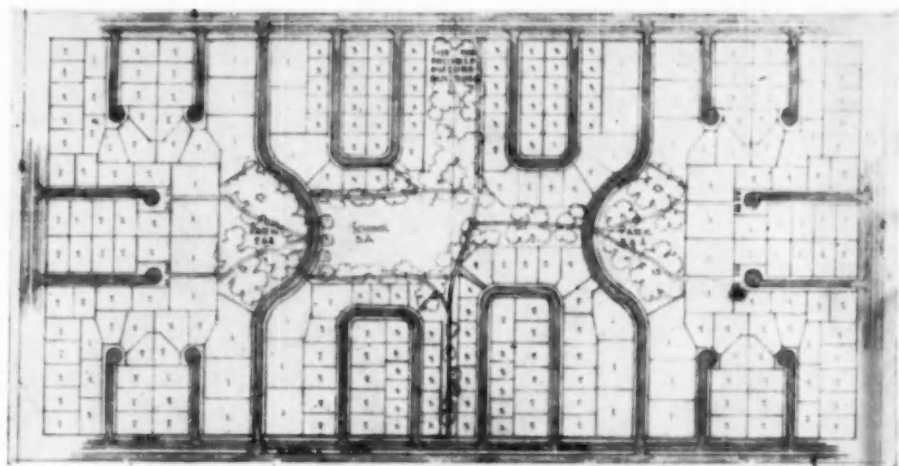


NEW CAPITAL CITY, PUNJAB, INDIA: A typical combination of three neighborhood super-blocks, for 3500 families  
*Mayer & Whittlesey, architects and engineers*

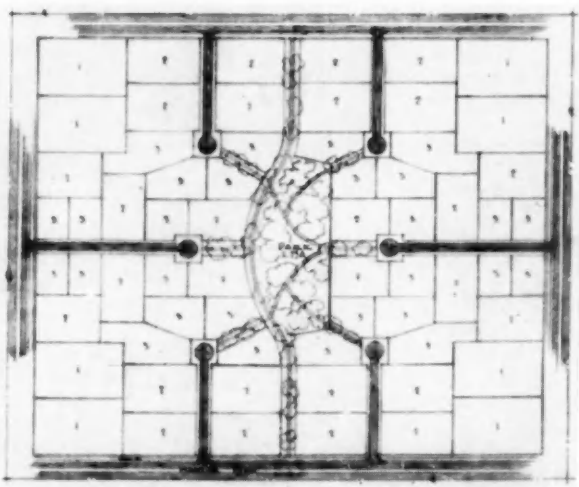
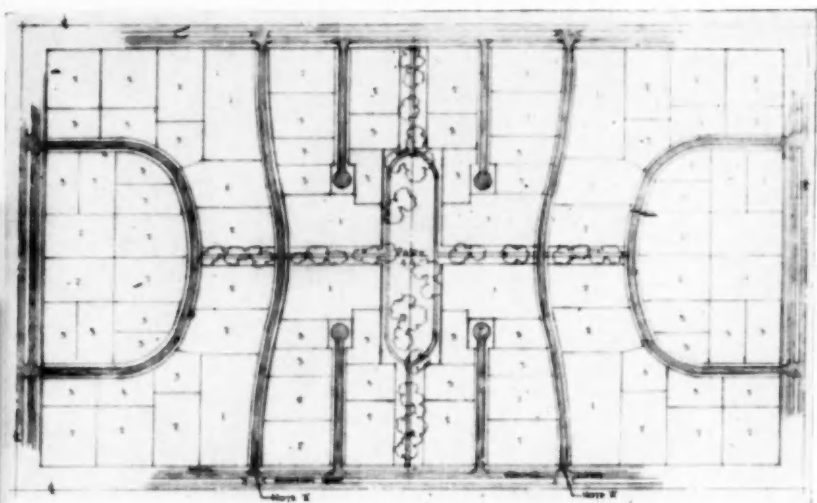


PUNJAB: The master plan for initial development. The round-end indications are shopping centers





PUNJAB: Plans of typical middle-income blocks. The plot numbers indicate: 1— $\frac{1}{8}$  acre, 2— $\frac{1}{4}$  acre, 3— $\frac{1}{2}$  acre



PUNJAB: Plans of typical upper-income blocks. The plot numbers indicate: 1—1½ acres, 2—1 acre, 3—½ acre

if President Truman's Point 4 ever eventuates, we will find we are not entirely on the giving and instructing end, but that if we are sensitive we shall get as good as we give.

I expect to describe some details, to give some figures, to show some illustrations. These in planning are often considered as of the essence itself, but I hope to put them in their context, I hope to enhance them by showing how they implement the main objectives, how they are really the flowering of those main purposes.

The distinction I am trying to make here is more important than you may think. In a modern advanced country—in the U. S. A. if you like—we are so surrounded by vested achievement, by so many facts and figures and well-developed techniques, so many highly developed technical means of one kind or another, that we are almost never able to shake ourselves loose from them, not able to put them out of the way while we concentrate on ends and objectives, not able to consider calmly and think completely through. We can in a sense really only improve. We cannot re-shape things entire and mold them to the heart's desire. And if we are not very careful, we even get further confused

by piling complicated ingenious means on top of each other, still further burying the ultimate causes and objectives. I need only call your attention to the futility of our super-highways and our 3-level crossings, which never for more than a short time catch up with themselves. You all know of our handsome parkways in the New York region. What you may not know is that various organizations have published directions on how to avoid them because they are overcrowded. These detours are of course the poor old inferior roads they replaced.

In planning *de novo* as we are doing in India, we are free to formulate ideas and objectives as clearly and boldly as our creative spirit permits. We call in facts and techniques as we find we need them, and in sequence with our developing thought and study—but they are simply handy tools; they do not clutter up our thinking.

So, first of all, I will state the objectives. I will tell you the *kind* of city we want to create.

But even before that, I want to tell you the kind of team we have built up to do it. When I first got this job, I felt pretty comfortably that our office could handle it, with some specialized advice on various

features. Then I thought No; we have an unprecedented opportunity and responsibility not only to India but to the world for generations to come. We owe it to the situation to draw in other significant people. Maybe they can contribute something, maybe they can't, but it's a kind of insurance policy, an assurance that we will have not only done the best we can, but the best that our generation can. So we got a small team together. Each of us has some developed specialty, but each of us has enough spillover into all aspects so that no one has failed to be heard on practically every aspect. So that it would be hard to tell just who has contributed what. It is an exceptionally gifted and sensitive team. There are of course my partners, Julian Whittlesy and Milton Glass. Clarence Stein you all know, an all-round expert and spiritual force. Jim Buckley, who understands city economics and transportation, and most other things also. Ralph Eberlin, whose quick and incisive mind goes far beyond utilities and roads and site engineering. Matthew Nowichi,\* who has a rare architectural talent and lightning mind. Clara Coffey,

---

\* Killed in the recent airplane crash near Cairo—Ed.

who knows much more than landscaping. All our significant conferences were attended by everybody working at every level of the project. I think they gained a good deal, and they often made useful contributions. Now to get back to the subject, what kind of city are we trying to create?

In the first place, we want to create a beautiful city. It may sound peculiar, it may sound unnecessary to mention this to a gathering of distinguished American architects. I don't think so, for two reasons. In the first place, since the City Beautiful concept was thrown out fifty years ago, and the functionalists and the sociologists took over, the concept of a large and compelling and beautiful unity has not been enriched by these important later additional and integral concepts, but has rather been replaced. There is no conflict or replacement. We have not ignored these factors; we hope we have creatively fused them, but we are unabashedly seeking beauty.

My second reason for mentioning this can be explained in this way. Can anybody who has studied our proposed new civic centers here—such as for example Foley Square in New York, or the Chicago Civic Center, seriously claim that they

have an abiding harmony or sense of scale or of humanity? We have had so little opportunity to design in the great scale of the great city builders, that we simply must go to school again. We have turned to some of the great exemplars—to the Concorde in Paris, the Piazza San Marco, St. Peter's, and studied and re-studied them to extract the essence.

Our second basic purpose is to create a sense of pride in the citizen, not only in this his own city, but in India, its past and its potential imminent future. For the Indian today is a frustrated man. When his independence came, it was poisoned by partition into India and Pakistan. The economic and social betterment which all expected in good faith is much slower in developing than expected. We are seeking symbols, to restore or to create pride and confidence in himself and in his country.

We are seeking to build a city not in our idiom, not the city of bold-winged engineering and cantilevers, which India's developed resources do not justify, but a city in the Indian idiom fused with our own simplicity and functional honesty. Frankly we are trying not so much to express ourselves or obtrude ourselves, but to develop this

capital city as modern self-confident Indians would if there were such a group. Note the word self-confident. I honestly believe we can not only do a more viable job, but a more *Indian* job than they could, because I think we can really enter into their spirit, and because practically all of the forward-looking Indians have been educated in, and dazzled by, the Western world, so that for a considerable time to come they will be doing Western work, be lacking the self-understanding and self-confidence needed. Note we are not thinking in terms of Indian archaeology, but of modern India.

What are our other basic concepts? Well, the first, before we touch the city plant as a whole, is the basic cell or unit—the neighborhood. We first had to explore that; what it should be like, what should be in it, what kind of life should be lived there, what its size should be, what the implications of that size were—whether its dimensions were such that a whole busy city's traffic could be created around and between them. A couple of points may be mentioned here: However useful the neighborhood concept is here, it is more valid in India, where most people are still villagers and small-com-

munity people at heart, and fairly recently by origin. The nature of the neighborhood is intimate, the shopping center preserves and encourages, as far as we can in a reasonably orderly way do so, the marvelous excitement and gaiety of the bazaar, the people in their sociable pre-occupation with shopping and visiting undisturbed by traffic.

Our neighborhood super-block of 1000 families or so, is one element in a 3-block unity, the center of which is the real heart of a small town of 3500 families, with a town square, local public buildings, health center, meeting hall—very much the same as the market square of the medieval European town. The reason is that the functions are much the same—meeting, gossiping, shopping, listening to speeches. Each should have the pool whose reflecting beauty and sense of coolness are such a heavenly gift in the Eastern tropics.

I haven't said much about traffic yet, though I will later, but just this: We believe traffic will be the well-designed incidental factor that it should be, not the all-pervasive, ubiquitous monster as we know it. There is, generally speaking, no appreciable automobile traffic *within* the basic

neighborhood, and no heavy automobile traffic of the through-road variety in the roads between the three blocks. Heavy traffic and bus-routes surround the 3-block district.

So we build up the town from these living units and district trilogies. We did not plan down to them, but up from them.

Our bounding roads are wide, with parallel local or service roads, making in all a very wide right-of-way. But we hope we have avoided the over-scale sterility and stiltedness of Delhi, the over-monumentality of Washington, to say nothing of the traffic complications caused by its basic rectilinear pattern and its superimposed diagonal pattern.

What we hope all this adds up to is a city of satisfactory inter-relationships, and satisfactory individual lives and moments; a framework which will take account of groups of people in their corporate activity, whether in industry, in school, in political meetings, in buses, at home; and of the individual's need for serenity, for aloofness sometimes, for facing himself. We want an essentially peaceful city, not one where complications and nervous tensions are created which must be counteracted by

other, remedial complications. We are trying to create a city as simple as possible, where the inter-arrangement of parts and functions minimize the need for fancy grade separations, though we will need a few of these.

And we want to provide a looseness and tolerance in the plan to allow for a future that can never be entirely imagined from the past or the present. That is why we are not too bothered by the lack of elaborate statistics. The problem here is to make such allowance, but not to overdo it. For in that case we might be providing a fine city for 50 years from now, but a moth-eaten city for, say, the first 20 years.

We are trying to create a city where the various kinds of people with their various habits and methods find themselves at home. We hope we have insight enough to estimate and sense how far we can and should encourage changes in habits to create better city living, and how far certain traditions and

habits should be respected and fostered and sublimated.

We wish, though it may be too unattainable a goal, to give so large a city planned at one time a varied feeling, to produce a city which in different parts produces differential effects within one overriding idiom—and note that what I have called the looseness and tolerance provide areas for future needs where future architects and architecture may develop, so that it is not a static town architecturally.

We are trying to give the inhabitant and the visitor elements of serenity and of excitement, of homeliness and of splendor, of greatness but not of overwhelming greatness.

We are feeling our way toward this kind of creation. It may be, as opportunities grow, as they certainly will in the "backward" areas, and as they filter upward into our own more advanced area, as we open our minds and creative spirits into this realm of thought and challenge, others will succeed in greater measure.

## News from the Educational Field

BOSTON UNIVERSITY announces the appointment of Robert L. Macneil, formerly of the Washington-

Metropolitan Chapter, as the University's Resident Architect.

M.I.T. has been given the job,



under the H.H.F.A. Housing Research Program, of studying the cost-reduction advantages of various types of house-producing organizations, from the small builder of ten houses a year to the factory-produced and dealer-erected system.

UNIVERSITY OF ILLINOIS has been given a part in the H.H.F.A. Housing Research Program. Their job is to gather data on what families need in houses, as a guide to architects in planning housing developments.

UNIVERSITY OF TEXAS: The School of Architecture, at present under the College of Engineering, in which it has long been a department, will become an autonomous school of architecture as soon as a new director has been appointed.

UNIVERSITY OF PENNSYLVANIA announces the award of two scholarships:

John W. Long, graduate of the

Department of Architecture of Pennsylvania State College, is the 1950 winner of the 46th competition for the John Stewardson Memorial Prize Scholarship in Architecture.

Edmund Bradford Tazewell, Jr., of Norfolk, Va., was named as the first holder of the Alfred F. Schenck Memorial Scholarship in Architecture. Mr. Tazewell is a candidate for the Master's Degree in June 1951. This scholarship was established last year through a bequest under the will of Alfred F. Schenck, a graduate of the Department of Architecture in 1900.

GEORGIA INSTITUTE OF TECHNOLOGY has entered into an exchange scholarship plan with Stuttgart Institute of Technology, Germany, by which each school will send a student to the other and allow these students credits for work on both sides of the water.

## Calendar

*October 1-November 1:* First Annual Exhibition of the Society of Contemporary Designers, California State Exposition Building, Los Angeles, Calif. For further details as to entries, address the Society at 914½ South Alvarado, Los Angeles 6.

*October 12-13:* Annual Convention of the Architects Society of Ohio, Commodore Perry Hotel, Toledo, Ohio. The Toledo Chapter, A.I.A. is acting as host.

*October 13-14:* Annual Convention of the Central States District, Joslyn Memorial Art Museum,

Omaha, Neb. The Nebraska Chapter will be host.

*October 16-19:* 17th Annual Meeting of the National Association of Housing Officials, Hotel Statler, Detroit, Mich.

*October 20:* National Noise Abatement Symposium, Armour Research Foundation, Illinois Institute of Technology, Chicago, Ill.

*October 24-26:* Regional meeting of the American Concrete Institute, Mayflower Hotel, Washington, D. C.

*November 2-3:* 11th Annual Convention of the Texas Society of Architects, Baker Hotel, Dallas.

*November 2-4:* Annual Convention of the N. Y. State Association of Architects, Syracuse, N. Y.

*November 9-11:* Annual Convention of the Louisiana Architects Association and Annual Meeting of Chapter Officers of Gulf States District, New Orleans, La.

*November 21:* Building Research Advisory Board research correlation conference on "Fire Resistance of Exterior Non-Load-Bearing Walls," National Academy of Sciences, Washington, D. C. (Postponed from Sept. 26.)

*November 27-December 2:* 19th National Exposition of Power and Mechanical Engineering, Grand Central Palace, New York, N. Y., under auspices of the American Society of Mechanical Engineers.

*January 21-25, 1951:* 7th Annual Convention and Exposition of the National Association of Home Builders, Stevens and Congress Hotels, Chicago, Ill.

*January 29-31, 1951:* Annual meeting, Society of Architectural Historians, Statler Hotel, Washington, D. C.

*September, 1951:* Congress on Building Research, to be held during the Festival of Britain, London, with the purpose of reviewing the progress made in research in relation to architecture, building, and associated branches of civil engineering. Those interested in having further details may address The Organising Secretary, Building Research Station, Bucknalls Lane, Garston, Watford, Herts, England.

*November 14-28, 1951:* Building Exhibition, Olympia, London. For further details address the Managing Director, 4 Vernon Place, London, W. C. 1.

## Honors

President Truman recently appointed to membership on the Commission of Fine Arts ELBERT PEETS of Washington and GEORGE BIDDLE of Croton-on-Hudson,

N. Y. Mr. Peets, landscape architect, replaces Frederick V. Murphy, F.A.I.A., whose term had expired, and Mr. Biddle replaces Maurice Sterne, representing the

painters. The Commission is now fully reorganized, and David E. Finley, Director of the National Gallery of Art, has been elected Chairman.

The Boston Society of Architects, entrusted with the award of the Harleston Parker Medal, has cited the firm of CRAM & FERGUSON for the 1950 medal in recogni-

tion of "the most beautiful piece of architecture, building or monument, completed in Boston since last year." This building is the John Hancock Mutual Life Insurance Building.

GEORGE FRED KECK of Chicago has been given the honorary degree of Doctor of Fine Arts by Lawrence College.

## Color Problems of the Architect

*By Waldron Faulkner*

Adapted from a paper by the author read before the annual meeting of the Inter-Society Color Council in New York, March 8, 1950

FOR MANY YEARS architects have been color-blind. At least, they have been blind to the importance of one of the essential ingredients of all recipes for good building design. Architecture has through the ages expressed itself in terms of Form, Line and Color. Of recent years Form and Line have carried the burden but Color has joined the ranks of the unemployed—the Forgotten Man.

And yet I think no one will deny the importance of color in architecture. The further we look back into antiquity, the more we are struck by the close alliance be-

tween them. From prehistoric days down to modern times they seem to have been inseparable.

Wood and masonry materials, with their limited range of color, have been used through the ages of recorded history and are still in use today, practically unchanged.

Artificial ceramic materials, such as brick, terra-cotta and tile were produced in more brilliant hues even in the days of the early Persians and Babylonians. The Byzantine period saw the development of glass in mosaic which reappeared later in the form of stained glass of Gothic times. Paint

was used before the days of civilization and has persisted in its use so generally that today the words "paint" and "color" are used almost synonymously, although they are quite different.

The relation of paint to architecture is so important that it merits more than passing attention. Pre-historic man used pigments to decorate the cave in which he resided. The Egyptians and Greeks used paints to enrich even the exteriors of their temples. The Romans, on the other hand, seem to have restricted the use of paint largely to interiors, and depended on marbles and other materials to enliven the outside of their ambitious structures. Romanesque buildings, however, are known to have had gaily painted exteriors. This idea persisted through Gothic times when, according to Viollet-le-duc, the facades of the cathedrals, such as Amiens and Notre Dame in Paris, were gorgeously polychromed over large areas. In the days of the Italian Renaissance buildings were decorated both inside and out by famous painters. From this point on we begin to see a decline in the use of painted decoration. Through the later Renaissance, including the Georgian Period, we see less and less

interest in the use of color. Our own Colonial architecture, which in the days of Williamsburg employed a wide range of colors, gradually gave way to white. Finally when the President's House in Washington had its original stone walls painted, it became the White House. Color had disappeared!

Now how did all this come about? Why did the partnership between decorative painting and architecture which produced the Sistine Chapel gradually dissolve? Here was an example where the architecture was little more than a coat of paint. One might truly say in this instance that beauty was only skin deep! Why did this eminently happy marriage result in divorce?

There are many answers to this mystery story. One is that during the Italian Renaissance the Age of the All-round Man gave way to the Age of the Specialist. Until the days of Michelangelo the artist was architect, painter, sculptor and general handyman. All creative expressions were guided by the same spirit. Up to this time painting was either purely decorative to emphasize and to enrich architectural detail, or it took the form of the mural—the painting on the

wall. With the discovery of perspective, however, the painter became interested in new possibilities. He framed the mural, carried it out under his arm, and developed what is now known as the easel picture. From here on the architect and the painter were perhaps friends, but were no longer partners. From that time forward color and architecture gradually parted company.

This was a gradual process and went on almost imperceptibly until the nineteenth century—the Age of Eclecticism. The architects of the Classic and Gothic revivals attempted to bring to life the glories of the past. Books of the period were full of measured drawings of old buildings in black and white. Plaster casts were made of classical details. Even the photographs taken later on to recapture the forms of the past were also in black and white. In many instances the models used for current buildings were antique monuments from which the paint has been washed away, without even realizing that the originals were once in brilliant color. When the dead past was disinterred it proved to be only a white corpse!

All this was years ago, and a great new movement is taking place today. A universal change has

given new life to all the arts—to architecture, painting, sculpture, music, literature and drama. This is no whim of fashion, but an irresistible force that sweeps everything before it. Modern Art is here to stay—for a time at least. It brings with it a new point of view toward art, literature and science. Modern Architecture is deeply interested in science and engineering. It attempts to follow basic principles and not traditional rules. Here is an opportunity to bring color back to architecture—where it belongs—not so much by studying the use of color in antiquity but in examining what modern science has discovered.

We all know the strides which science has made in the field of color. Today color has become a science in itself. The field of color has in the last few years been organized in such a way as to be of real value to the design professions. Although there is not the slightest intention on the part of the scientists to restrict the imagination or the intuition of the creative designer, yet it seems clear today that modern science can help him.

The point at which architects face the stern realities of color problems is in the selection and

specification of building materials. Many of these materials, whether natural or manufactured, have colors which must be planned for in the finished building. The natural materials, such as wood, stone, slate or marble, are relatively restricted in their range of color, and this cannot be controlled except by selection.

With artificial materials, on the other hand, the color range is much wider and is more susceptible of control. Nevertheless, the selection of manufactured materials is still a difficult part of the architect's duties. He must do the best he can with what the market has to offer. He must work like a painter who has a limited palette. His choice is restricted to the colors available, which, like railroad timetables, are subject to change without notice. I realize that the widening of this color range may present many problems, but it may be one area in which the industrial designers can help us.

After the natural and manufactured building products have been selected, we come to the question of specifying paints. Here we have a full range of colors under almost complete control. These can be selected to match or to harmonize with the other materials already

specified. But here again we run into difficulties with paints for exterior use, for instance.

When we come to painting the exterior of a building, we are extremely limited by the range of colors which are reasonably permanent on exposure. In general there seem to be only about six or eight standard wall colors and even fewer trim colors. They can be intermixed to some extent, but even then the range is far from lavish.

And finally we come to the problem of developing a paint-and-finish schedule by which we attempt to carry out a color scheme in terms of specific paints. Assuming that an architect is familiar with the theory of color harmony and is fluent in developing a color scheme by means of one of the recognized color systems, how can he translate it easily into a paint schedule?

I recognize the difficulties involved in reproducing a color-mixture system in terms of paint, and I take off my hat to the paint manufacturers and their consultants for what they have already done in setting up useful paint-mixture systems. However, I am still floored when I attempt to turn an Ostwald "shadow series" into pigments. I am convinced that paint-

mixture formulas for a large number of chips, based on a standard color system, would be of immense value. This seems necessary because the average house painter today seems unable to match samples readily and must be given detailed instructions as to how to mix his paints.

While we are on the subject, I would like to look one step further to the day when all building products can be classified as to color in terms of one or more of the well-known color systems. If this could be achieved, I can imagine a system of "color coordination" in which products of different kinds could be accurately related to each other as to color. It would then be possible to develop a theoretical color scheme and to translate it directly into a color schedule in which all the materials would be harmoniously related.

The only thing the manufacturers would have to do at first would be to give their present products a standard notation indicating their corresponding tolerances and color ranges. Some of this has been done already. It might not even be necessary for a while to change the colors of the existing products, as long as they

were all classified according to the same color system. As time went on and changes in the colors seemed desirable, the new colors would still be related by the same system. This may bring with it serious technical difficulties, which happily I know little about! However, if building products can be related in terms of dimension, it would seem possible to relate them also in terms of color. I am certain that this would be of great value to the architects and I feel that an orderly classification such as this would ultimately result in real benefits to the manufacturers as well.

Many of you doubtless know of the Textile Color Card Association, which for over thirty-five years has set up color standards used by industrial and government groups not only in this country but all over the world, reaching all the way from sewing-threads for the U. S. Army to the flag colors of the United Nations. It has developed a system of color coordination which has been used in the manufacture of textiles and in many other industries.

The British Color Council was set up in England some years later and has performed a similar service for manufacturers in Great Britain, with special reference to



materials used in interior decoration.

If the principle of color co-ordination can achieve such conspicuous success as it has in the fields of textiles, interior decoration and of other manufactured products, is there any reason to doubt that it could be extended to advantage in the area of building materials?

Such a program would assign a specific name or notation to each color of every building product whose color must be accounted for in the finished building. The color range of any given product could be accurately shown. Often a wide range is desirable, as in face brick which may vary all the way from pink to black in the same wall. These materials would then be related as to color in an orderly manner which would be easily understood. If the standard adopted is in terms of a recognized color system in which surface color samples are made available, the building materials can then be selected and specified directly from these chips. This might ultimately

make color cards and catalogues with colored reproductions of samples unnecessary. These are expensive; the colors are difficult to reproduce and the reproductions are rarely reliable interpretations of the products themselves.

On the other hand, a new system of reproduction has recently become available which does match colors with great accuracy. The thickly deposited film gives a three-dimensional effect. Texture, glass, mottle and marbleizing are reproduced with striking realism.

Finally, if building products are keyed to standard reference samples arranged in harmonious series, the products could be selected to harmonize among themselves and with other materials classified in the same way. This would make it easier for the architect to arrange different materials in harmonious combinations.

The problems outlined in this paper are not fictitious but real, and any resemblance they may have to your own problems is not entirely coincidental.

## They Say:

Jerry Finkelstein

*Chairman, New York City Planning Commission*

Fortunately, there are ways in which substantial protection against the atomic bomb can be provided

for many of those in greatest danger without delay and without undue expense, in view of the benefits to be derived. The structures known to be most resistant to the atomic bomb are reinforced concrete enclosures with slabs and walls of adequate thickness. Such structures if of sufficient size are also excellently suited for the parking of cars in peacetime. If designed to be placed under parks, as they already have been in a few instances in other cities, they can provide the facilities so necessary for both parking of cars in peacetime and for mass protection against bombing in wartime.

I. C. Perrott

*(Speaking of his twenty years at the press tables of the Architectural Association and the R.I.B.A.)*

After all, commodity, firmness and delight are the qualities of a good speech.

Twenty years ago a building would be thrown on the screen here and greeted with rapturous applause. Ten years ago it would be received with awkward silence, while the audience made up their minds whether they were intended to applaud or laugh; today they are quite certain that they are meant to laugh.

I am sufficiently ancient to have heard used in this room the words, "The Battle of the Styles." In literature, I would say that style is the preoccupation of those who have nothing to say. Whether that is true of architecture I do not know.

It seems doubtful whether even the good architect can do much more than reflect the spirit of his age, and therefore, if you are to produce good architecture, something must first be done about us.

Walter Gropius

*(Speaking at a dinner in the Blackstone Hotel, Chicago, April 17, 1950)*

In our universities, a student is so absorbed by studying music composed by others, poetry written by others, and architecture, painting and sculpture created by famous men of the past, that he rarely finds a chance to try his hand at *making* poetry, music or art of his own invention.

Dr. Paul Siple

CLIMATOLOGIST AND MILITARY GEOGRAPHER, U. S. ARMY GENERAL STAFF

*(At the BRAB Conference on Weather and the Building Industry, January 1950)*

The graduations of the Fahrenheit or Centigrade temperature

scales bear little relation to human comfort, for they really express only the expansive effect heat has upon mercury, alcohol, etc.

Eliel Saarinen

*(From a message to the R.I.B.A.,  
March 8, 1950, in lieu of coming  
to London to receive the Royal  
Gold Medal)*

This search for a new architectural form has been going on already during the long period of half a century. It still goes on in

full swing, and it does it now on a very much broader front. This search—as you all know so well—has been many-phased, just as life itself has been many-phased. Sometimes the search has been cautious, sometimes bold, sometimes erroneous, sometimes tricky, sometimes too emotional or too technical. But on the whole the search has brought forth great gains in true form-expression, and in the right understanding of the meaning of architecture.



## Architects Read and Write

*Letters from readers—discussion, argumentative, corrective, even vituperative*



### A PRESCRIPTION REFILLED?

By JOHN S. BURRELL, New York, N. Y.

LEWIS MUMFORD'S "Regional Planning and the Small Town," reminds me of a year spent in an environment almost the counterpart of the one advocated in the thesis which the Editor of the JOURNAL "ventures to hope is a prophesy in the process of fulfillment."

The place was a suburb of Munich, and the time before the first World War. The town was separated from the city by a greenbelt, in this case the Grünwald, and was "limited in area, limited in population and limited in density" by an authority which, for military reasons, among others,

wished to have a ring of self-sufficient communities around its urban centers.

Nearby Munich had most of the attributes of the ideal city of the future. No slums, no beggars, ample parks, cultural and recreational facilities (except those of an athletic nature) and excellent beer and music.

In this almost perfect state the combined English and American colony was very small. The only compatriots I remember were a then unknown young singer named Geraldine Farrar and the rector of the English Church who conducted Sunday services in a rented

music hall. This cleric collected money for a work of art to be hung as an altar piece, and then skipped town without paying the rent, leaving a very poor copy of a well-known picture. His abandoned flock was secretly pleased that for once someone had outwitted the police who were forever checking all outlanders.

It seems that the foreign colony was small because only the Teutonic temperament could stomach so much authority, which like the Holy Ghost was everywhere. It came uninvited to a party lasting after eleven P. M. to check the permit. It ran the transportation, the opera, and said how much bock beer could be brewed. It also

dictated the suitability, style, height and bulk of all new buildings.

Compared to the German scene of the early nineteen hundreds, Mr. Mumford's proposal of "something like the Port Authority of New York-New Jersey" to solve the small town problem sounds innocuous, but it should give one pause.

Admittedly something will have to be done about "Suburbia" to ease its growing pains, and zoning on a regional basis or ultimately a control of the population flow may be necessary, but to one who in his youth was subjected to "Das Kultur" Mr. Mumford's suggestion is looked upon with some misgivings—a chapter thought to have been closed.

#### THE LIBRARY POOL

BY FRANCIS P. SULLIVAN, F.A.I.A., Washington, D. C.

WITH REFERENCE to the articles by Mr. Lewis Mumford regarding "Regional Planning and the Small Town" I notice the descriptions that are given of a system in use in England whereby the borrower from a small town branch who cannot find the book he wants in his local library gets it from a pool.

Since the prophet is proverbially honored principally in regions remote from his residence, it should not perhaps be surprising that Mr. Mumford goes so far for his illustration and ignores the fact that substantially the same system is in

use in the United States centering in the "Union Catalogue" of the Library of Congress, and that the American system, as a matter of fact, far antedates the English system.

It was proposed in 1897 and the first steps to bringing it into reality were taken around 1900, and it has been in full operation at least since 1927.

One curious feature of the American system is that the Union Catalogue contains a section devoted to a card catalogue of the books in the British Museum, a convenience which the British li-

brarians have stoutly refused to adopt so far for their own purpose.

May I besides make the comment that Mr. Mumford's suggestions do not take into account the fact that besides the undoubted preference of the majority of people for living in a city, there are cer-

tain branches of industry which cannot possibly be carried on in any other location. For instance, if you were to suggest to a New York stockbroker that it would be to his advantage to move to the San Bernardino Valley in California he would look at you with surprise and incredulity.

### LEWIS MUMFORD ON REGIONAL PLANNING

BY CHARLES DANA LOOMIS, Baltimore, Md.

**I**N the July and August numbers of the JOURNAL can be found the text of an address by Lewis Mumford on the occasion of the 1950 Convention. This composition is entitled "Regional Planning and the Small Town." A careful reading of this statement of goals and desires has stirred this unvouched-for individual to certain comments.

I say unvouched-for, because in my observation anyone who ventures to voice an opinion on whatever subject today is wasting his time and talking to himself unless he has, as one might say, checked in with his union card or "national handicap" to vouch for his competence to speak. He must show receipts for the various accolades from school and college, from professional school and professional society, and, sine qua non, from the publishing and advertising brotherhood which is really in charge of the printed word in America today. Anathema maranatha, therefore, upon me for a start off.

But I am doubly disqualified by my inability to ingest the thesis that all wisdom, virtue and constructive beneficence rests in that part of what F. P. A. used to describe as the "so-called human race" which has gotten onto the voting lists since World War I. I realize that the mere fact that I have been around observing matters with interest since Grover Cleveland's day is two strikes on me right off. Having thoroughly discredited myself, I will return to my muttons, or whatever the modern phrase is.

Mr. Mumford's thesis, when carefully decorticated from the sugar sap and gums which envelope the fiber, turns out to be a plea for the Welfare State as it will be designed and operated by intelligent and disinterested persons without taint of political, economic, religious, national or parochial prejudices. So far as this mystified observer has been able to discover, there have been only four leaders of men in all history who could at-

tempt to qualify for this class, and each of them has been disqualified by some part of posterity because of their "rightist" or "leftist" tendencies.

But even more interestingly, Mr. Mumford is apparently going to have to repopulate the world of which he speaks with people so thoroughly indoctrinated with equalitarianism, to use a nasty right-wing word, that they actually would be happy and content existing in one of these "balanced" and equivalent towns; would be willing to give up the secret conviction that their way of living, their scenery, their dietary, their clothing, their local accent, their hatred of alien "cultures," wasn't sounder, more moral, more soul-satisfying than that of any "hick town" or any Babylonian "sink of perdition." They will have to be satisfied to have some brilliant (if alien) mind say whether or not they can have a new brick block off Main Street, the right to keep chickens, or announce prohibitions against their right to be naughty in a thousand ways.

Mr. Mumford doesn't seem to quite understand that the people of the "provinces" still love to go to the big city just to gape at the monstrosities, to get a thrill from change, and to get back home where they can tell about the wonders, but more particularly, about the

horrid undesirable ways and bestial surroundings of the city slickers. He must be writing of some foreign people, English or French or German or Czech or perhaps Russian, because most of the people in the U. S. A. live in the "sticks," in "tank towns" or "whistle stops," and nearly all of them are incapable of facing with equanimity the proposals made by Mr. Mumford. There is something pretty revolting about his suggestion that "culture" and "art" should be, as the British say, "laid on" like City water.

The frictions, the struggles, the frustrations of politics, of economics, of localisms, of religious and natural environment, and of that terrific human variety, are the things that make society, cultures, towns, languages, prisons, lunatic asylums; but too, the end product a rugged, hard-bitten and competent people who know how to take care of themselves.

"The almost perfect State" even as visualized by Don Marquis of blessed memory, was not intended to produce anything but urbane and civilized jest.

It would be wonderful if the "sad young men" of today could take enough time off from their good deeds to inject occasional kindly laughter into their rather sardonic efforts to guide human life.



OCTOBER, 1950

## The Editor's Asides

IF A CLIENT OF YOURS thought so highly of the house you had designed for him as to commission one of the top painters to produce a portrait of you that might be hung in a place of honor in that house—that would be news. Well, let us recall the fact that just such an action was taken by Matthias Hammond when his Annapolis house, started in 1770, was finished. No less a painter than Peale was commissioned, and the subject was his architect, Matthew Buckland. A rough black-and-white approximation of the Buckland head is on the front cover of this issue.

GLENN E. BENNETT, the executive officer of the United Nations' Planning Office, tells us of the joy of those of the Secretariat staff who have already moved into the new building. Great windows instead of the artificially lighted caverns of Lake Success have given a tremendous boost to morale.

"I LIVE in one of those old-time high-ceilinged houses. You know—always cool in summer." Well, are they? And how about the winter months?

Texas A. & M. is about to find

out the facts. Light, air and sound are elements of design about which we should know a lot more. What happens to each of them when our ceilings are 8', 10', 12', 14' high? When they are sloping? When the rooms are variously oriented? Various daylighted with single, grouped or continuous windows?

The Texas researchers are building a 30' x 30' structure, mounted to rotate, with non-bearing outside walls that can be of any desired fenestration pattern, and ceiling panels that can be adjusted to various heights and shapes. Light, air and sound waves are to be put through all their paces, and the results scientifically recorded, not only independently but also in correlation. It is rather appalling how little we really know about the elements with which we work on on a rule-of-thumb basis.

DEAN SAVILLE of New York University's College of Engineering says that we are facing a shortage of graduate engineers. A fantastically large enrollment of engineering students followed the end of World War II—so large that fear was expressed that there would not be jobs enough to keep these



graduates employed. Thereupon the enrollment steadily decreased, until this year's freshman classes may well be below pre-war figures. Meanwhile, graduate engineers, far from being a drug on the market, have been grabbed by industry before their diplomas were dry.

Turpin Bannister recently undertook the job of finding out whether or not we are educating enough architects to meet America's growing demand. We crave to know.

IT HAS BEEN our fond hope that the JOURNAL's advertising pages were read by the architects. It had to be a hope, for there seemed no practicable method of making sure. Then the August JOURNAL appeared. On one of the advertisements this statement appeared, in very small type: "Four score years ago The Institute awarded McKim its highest honor—its Gold Medal for 1909." Immediately our postman's burden became heavy. "Don't you know the difference between four score years and four decades?" was the tenor of the typical correction. Architects in Nebraska, Indiana, Michigan, Ohio hurried to shame us. We wrote the agent who had prepared the copy for the Georgia Marble

ad and flaunted the boner before him. "It isn't news to me," he wrote. "About the only person who hasn't called my attention to it is Mr. Truman, and he's probably too busy."

So, do not bother to tell us, the rest of you. The postman's one-a-day delivery is too heavy for him as it is. But we shall never again doubt that architects read the JOURNAL's advertising pages.

THE AMERICAN HEART ASSOCIATION is taking up architecture. Cardiovascular diseases and those who strive to prevent them would seem to have little connection with the dwelling house, but the Association is worried by the amount of exertion laid on the heart muscles by our ineptitudes of design. The housewife must lift with her legs not with her back; she must cultivate rhythm in ironing; she must stop worrying and accept the things that cannot be changed—particularly ill-designed closets, lack of proper furniture space, unnecessary stairs, improper sequence of operations in poor kitchen design. As for the architect responsible for these hazards to life—who may himself have a weak heart—the Association holds out no hope.

**TO SAVE YOU TIME...**



## **Chamberlin offers latest Weather Strip and Insect Screen Specification Data**

**Up-to-date**, timesaving specification files—prepared by Chamberlin for your handy reference—are available to aid you in weather strip and insect screen installations.

You'll save time on weather-stripping jobs with Chamberlin's all-purpose Weather Strip and Threshold specification file. And, you'll find the Chamberlin Insect Screen file a real help for detailing metal-frame screens in windows, doors, breezeways, porches and terraces in homes or commercial buildings.

Write today for both of these complete, well-illustrated files. We will also be glad to furnish information to architects on Chamberlin rock wool insulation, calking and storm windows.

**OVER 53 YEARS OF SERVICE**

# **CHAMBERLIN**

**CHAMBERLIN COMPANY OF AMERICA**

**CHAMBERLIN COMPANY  
of AMERICA**

**1254 La Brosse Street  
Detroit 32, Mich.**

# AMERICAN-Standard

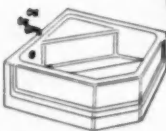
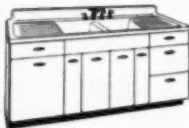
First in heating . . . first in plumbing



ON MORE and more construction jobs you'll find heating equipment and plumbing fixtures by American-Standard. This isn't surprising when you remember that the American-Standard line is the most complete in the industry, and includes products for even the most specialized needs.

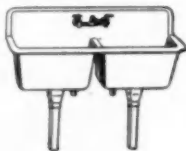
This variety of products offers the widest flexibility in designing and styling for structures of almost every size and type . . . whether for houses, hotels, schools, hospitals, or large industrial buildings.

In design and in performance, you can rely on American-Standard Heating Equipment and Plumbing Fixtures to do the job right. Your Heating and Plumbing Contractor will be glad to give you up-to-date information on the complete line. American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pa.



Look for this

Mark of Merit



*Serving home and industry*

AMERICAN STANDARD • AMERICAN BLOWER • CHURCH SEATS  
DETROIT LUBRICATOR • KEWANEE BOILERS • ROSS HEATER • TONAWANDA IRON



## Architectural Concrete

is equally adaptable to the Spanish Romanesque design of St. Timothy's church in Los Angeles, California (above) or to the modern or classic. Architectural concrete produces beautiful, distinctive and enduring structures of any size, style or design when the simple and time-tested procedures of quality concrete construction are followed.

**PORTLAND CEMENT ASSOCIATION, 33 W. Grand Avenue, Chicago 10, Illinois**

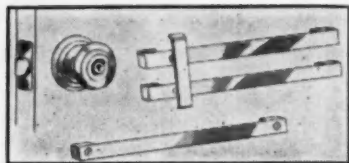
A national organization to improve and extend the uses of portland cement and concrete through scientific research and engineering field work

For economy and long life  
**USE ALCOA ALUMINUM**



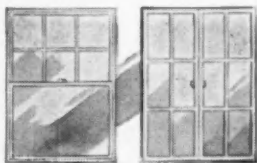
**SILLS AND THRESHOLDS**

For homes, apartments and commercial buildings, Alcoa Aluminum sills and thresholds are easy to install, last for years without maintenance, can't discolor adjacent areas.



**HARDWARE**

Long-lasting, economical, corrosion-resistant hardware of Alcoa Aluminum blends with all types of decorative styles, keeps its good looks for years. Made by leading manufacturers.



**WINDOWS**

No need for special care when windows are Alcoa Aluminum. They never require painting, keep their snug fit and good appearance, can't rust-streak rot or warp.

Every year, more new buildings make more use of aluminum building products. And no wonder. Aluminum is easy to install, economical, cuts down replacement and maintenance costs. For information on any application of aluminum, call your nearby Alcoa Sales Office or write ALUMINUM COMPANY OF AMERICA, 1890K Gulf Building, Pittsburgh 19, Pennsylvania.

**ALCOA** FIRST IN  
**ALUMINUM**



Consider Alcoa Aluminum for these building uses—exterior and interior walls, spandrels, screening, ducts, coping and gravel stops, roofs, doors and trim.



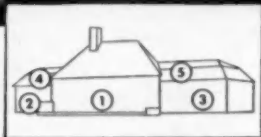
## 5 Thermostats FOR COMFORT AND REAL FUEL ECONOMY!

THIS CONNECTICUT residence is an excellent example of a home that is custom-built to offer the ultimate in gracious living. Nothing has been overlooked in the way of comfort. And comfort, of course, starts with the heating system.

To assure the utmost in both comfort and economy, this home was divided into 5 heat control zones—each with its own Honeywell thermostat. Heat is supplied only in the amount needed and where it is needed. One part of the house will never be too warm while another section is chilly. Instead, there is all-over comfort and no fuel waste from overheating.

Your clients can gain these same important benefits in custom-built heating comfort. Just consult your nearby Honeywell control engineer about the proper controls and control areas needed. There is a Honeywell office conveniently located in or near your city.

Write for the informative folder, "Residential Zone Control Applications and Specifications," reprinted from the Producer's Council Bulletin, A.I.A. File 30-E. Minneapolis-Honeywell, Minneapolis 8, Minnesota. In Canada: Toronto 17, Ont.



This Home has 5 Thermostats

- ① In the Living-Dining Area
- ② In the Sleeping Area
- ③ In the Kitchen-Service Area
- ④ In the Guest Rooms Area
- ⑤ In the Maids' Rooms Area



**ELECTRONIC CLOCK  
THERMOSTAT**

Automatically lowered night temperatures may be provided for each zone, for additional convenience and fuel economy.

MINNEAPOLIS  
**Honeywell**  
FIRST IN CONTROLS

# BUILD PRESTIGE . . . SATISFY CUSTOMERS

*This Easy, Economical Way*



BILL, YOU'LL BE GLAD I SPECIFIED NICHOLS NEVER-STAIN ALUMINUM NAILS FOR YOUR HOME. THEY WON'T RUST LIKE ORDINARY NAILS. THEY WON'T STREAK OR STAIN PAINTED SIDING OR CAUSE SIDING TO LOOSEN THROUGH NAIL RUST. YET THEY COST LESS THAN \$3.50 MORE THAN ORDINARY NAILS FOR YOUR FIVE-ROOM HOUSE



ONE YEAR LATER

MR. LEE, I WANT TO PERSONALLY THANK YOU FOR USING ALUMINUM NAILS ON MY HOME. ONE OF MY NEIGHBORS HAD TO REPAINT HIS HOME LAST WEEK BECAUSE OF RUSTED SIDING. COST HIM \$300. MY PLACE LOOKS GOOD AS NEW - THANKS TO YOU AND NEVER-STAIN ALUMINUM NAILS!

## Yes! THERE'S A BIG DIFFERENCE IN NAILS!

Nichols Never-Stain Aluminum Nails are etched from head to tip for greater holding power . . . drive easily . . . lighter to carry . . . and cost less to apply because no countersinking or puttying is necessary! Billions have been used.

A WIDE VARIETY OF TYPES AND SIZES

NOW PACKAGED FOR THE JOB!

Aluminum Roofing Nails • Wood Siding Nails—Casing or Sinker Head • Asbestos Siding Nails • Rock Lath Nails • Shingle Nails • Asbestos Shingle Nails • Cedar Shake Nails • Drivall-Board Nails • Roofing Nails with or without Gora-Lee neoprene washers



## NICHOLS WIRE & ALUMINUM CO.

General Office and Plant — Davenport, Iowa  
Branches — Mason City, Iowa • Battle Creek, Mich.  
South Deerfield, Mass. • Oakland, Calif. • Seattle, Wash.

ALUMINUM IS NOT A SUBSTITUTE!







## "School for Thought"

*Here is a classic example of the arresting beauty of marble. When Vermont Marble is specified for the trim at entrances, sills and lintels of windows, water-tables and other projecting members exposed to the weather, buildings literally beam with beauty.*

Even though a limited budget may dictate your neighbor's decision to specify cheaper material for plain wall surfaces, you would criticize his judgment if he should use, for the most conspicuous and exposed parts of his building, material that's subject to decay.

So, act upon your own criticism. In the interest of economy, beauty, and durability, specify Vermont Marble trim.



Staples School, Westport, Conn.  
Architects: Reginald Marsh & Starrett & Van Vleck.  
Danby Vermont Marble Trim.

COLOR • CHARACTER • PERMANENCE • LOW MAINTENANCE

# crystalline VERMONT MARBLE

VERMONT MARBLE COMPANY • PROCTOR, VERMONT

### Branch Offices

Boston • Chicago • Cleveland • Dallas • Houston • Philadelphia • Los Angeles • New York • San Francisco  
In Canada: Ontario Marble Company, Ltd., Peterboro, Ontario and Toronto, Ontario  
Brooks Marble & Tile Company, Ltd., Toronto, Ontario





Here, compiled under one cover, is everything you want to know about floor treatments, building maintenance, sanitation, custodial training. MODERN MAINTENANCE, Hillyard's new catalog, contains a gold mine of practical guidance, latest information available, in the field of ceiling to floor maintenance. This book was designed to HELP YOU plan a low-cost maintenance program—to keep your buildings in "better than ever" condition at all times. Destined to become a "bible" of the industry . . . MODERN MAINTENANCE by HILLYARD will prove to be a profitable reference.

**Contains "how-to" guidance on every phase of building maintenance, floor treatment, sanitation**

ST. JOSEPH, MISSOURI, U.S.A.

<p><b>HANDLE WITH CARE!</b></p> <p><b>HILLYARD</b></p>	<p><b>MAIL COUPON For your FREE COPY</b></p> <p>Dear Sirs: Please send me a copy of Hillyard's new catalog, "Modern Maintenance", just off the press. I understand there is no charge.</p> <p>Name.....</p> <p>Building Address.....</p> <p>City.....State.....</p>
--	---

# THE AMERICAN INSTITUTE OF ARCHITECTS

## BOARD OF DIRECTORS

### OFFICERS

(Terms expire 1951)

RALPH WALKER, President  
101 Park Ave., New York 17, N. Y.

GLENN STANTON,  
First Vice President  
208 S. W. Stark St., Portland 4, Ore.

KENNETH E. WICHMEYER,  
Second Vice President  
911 Locust St., St. Louis 1, Mo.

CLAIR W. DITCHY, Secretary, 5 W. Larned St., Detroit 26, Mich.

CHARLES F. CELLARIUS, Treasurer, St. Paul Building, Cincinnati 2, Ohio

### REGIONAL DIRECTORS

(Terms expire 1951)

THOMAS D. BROAD, 618 Reserve Loan Life Bldg., Dallas 1, Tex. Texas District

JAMES H. MITCHELL, 407 Sansome St., San Francisco 11, Calif. Sierra-Nevada District

LORENTE SCHMIDT, 1832 E. 2nd St., Wichita 7, Kan. Central States District

ROSS SHUMAKER, Box 5445, Raleigh, N. C. South Atlantic District

(Terms expire 1952)

ARTHUR C. HOLDEN, Room 2305, 570 Lexington Ave.,  
New York 22, N. Y. New York District

M. H. STARKWEATHER, 40 W. Congress St., Tucson, Ariz. Western Mountain District

WILBUR HENRY TUNLER, 202 Foshay Tower,  
Minneapolis 2, Minn. North Central States District

HAROLD BUCKLEY WILLIS, 20 Newbury St., Boston 16, Mass. New England District

(Terms expire 1953)

HOWARD EICHENBAUM, 304 Wallace Bldg., Little Rock, Ark. Gulf States District

JOHN N. RICHARDS, 518 Jefferson Ave., Toledo, Ohio. Great Lakes District

C. E. SILLING, 314 Masonic Temple, Charleston, W. Va. Middle Atlantic District

IRVING G. SMITH, 2040 S. W. Jefferson St., Portland 1, Ore. Northwest District

### THE EXECUTIVE COMMITTEE OF THE BOARD

(Terms expire 1951)

RALPH WALKER, Chairman

ROSS SHUMAKER

CLAIR W. DITCHY, Secretary

GLENN STANTON

CHARLES F. CELLARIUS

KENNETH E. WICHMEYER (Alternate)

### HEADQUARTERS

1741 New York Avenue, N. W., Washington 6, D. C.

EDMUND E. PURVIS, Executive Director

J. WINFIELD RANKIN, Administrative Secretary

FREDERICK GUTHRIE, Assistant to the Executive Director

HENRY H. SAYLOR, Editor of the JOURNAL and BULLETIN

WALTER A. TAYLOR, Director of Education and Research

THEODORE IRVING COE, Technical Secretary

FREDERIC ARDEN PAWLEY, Research Secretary

WILLIAM DEMAREST, JR., Secretary for Modular Coordination

Official address of The Institute as a N. Y. Corporation, 115 E. 40th St., New York, N. Y.  
The Producers' Council, affiliated with The A.L.A., 315 15th St. N.W., Washington 5, D. C.

